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IMPLICITLY DERIVED REGISTER SPECIFIERS IN A PROCESSOR

Marc Tremblay and William Joy

ABSTRACT OF THE DISCLOSURE

5 A processor executes an instruction set including instructions in which a register specifier is implicitly derived, based on another register specifier. One technique for implicitly deriving a register specifier is to add or subtract one from a specifically-defined register specifier. Implicit derivation of a register specifier is selectively implemented for some opcodes. A decoder decodes instructions that use implicitly-derived register specifiers and reads the explicitly-defined register. The
10 decoder generates pointers both to the explicitly-defined register and to the implicitly-derived register. In other embodiments, a pointer to registers within a register file includes an additional bit indicating that a register read is accompanied by a read of an implicitly-derived register.

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